

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number  
**WO 2005/050946 A1**

(51) International Patent Classification<sup>7</sup>: **H04L 29/06**

(21) International Application Number:  
PCT/EP2004/051462

(22) International Filing Date: 12 July 2004 (12.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03292711.3 30 October 2003 (30.10.2003) EP

(71) Applicant (for all designated States except US):  
**HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.** [—/US]; 20555 S.H. 249, Houston, Texas 77070 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **FORISSIER, Jerome** [FR/FR]; Le Grand Large A, 55, Av de Cannes, F-06160 Juan Les Pins (FR). **GAYRAUD, Richard** [FR/FR]; Res. Santa Monica, Bat C, 70 av. Maurice

Cheval, F-06110 Le Cannet (FR). **LAMBERTON, Marc** [FR/FR]; 981 route de St Jean, F-06600 Antibes (FR). **MANSUTTI, David** [FR/FR]; Les Terrasses de Vallauris / Appt 22 Bt A, 190 route de Cannes, F-06220 Vallauris (FR).

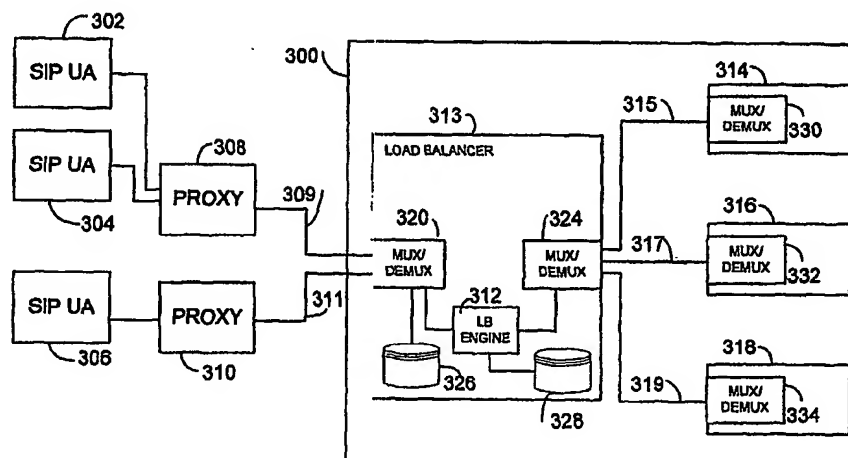
(74) Agent: **LLOYD, Richard, Graham**; HP Centre de Competences France, IP Section, Legal Dept, 5 av. Raymond Chanas, F-38053 Grenoble Cedex 09 (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR LOAD-BALANCING



(57) Abstract: According to one aspect of the present invention, there is provided a method of routing a message, conveyed in stream through a point-to-point connection to a load-balancing element, to one of a plurality of available processing systems each connected to the load-balancing element by separate point-to-point connections, io, comprising at the load-balancing element: extracting the message from the stream; detecting in the extracted message the presence of an identifier identifying one of the available processing systems; and where the presence of the identifier is detected, forwarding the message to the processing system identified thereby via the appropriate connection; otherwise determining a destination processing system for processing the message; inserting into the message an identifier identifying the determined destination processing system; and forwarding the message to the processing system via the appropriate connection.

WO 2005/050946 A1



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM,

ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

**Published:**

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.